

# Gentle delivery and metering

DULCO<sup>®</sup>flex hose pumps for laboratory and industry applications



# Simple operating principle compact, robust design



## Hose pumps of the DULCO® flex product range

Key features of ProMinent hose pumps are their simple operation and compact, robust design. They are self-priming and operate without seals and valves. Suitable for low, medium and high pump capacities, the hose pumps of the DULCO®flex product range are suitable for use in nearly all metering and delivery tasks both in the laboratory and in industry because of their wide performance range and the large range of available hose materials. Whereas the pumps are fitted with roller technology for low pressures of up to 8 bar, they have shoes for higher pressures of up to 15 bar.

Because of its construction, the hose is the only wear part, and this is quick and easy to change.

### Advantages of the hose pumps of the DULCO®flex product range

- Simple to operate
- Reversible discharge direction
- Hose materials suitable for various chemicals
- Simple and quick hose replacement
- Safe against running dry
- Self-priming
- Pump capacity up to 15,000 l/h
- Pressure up to 15 bar
- Ideal for transporting pasty, viscous, abrasive and out-gassing media

### Drive options

- Drive without speed control
- Drive with manually changeable speed
- Drive for frequency converter operation

Type	Use	Pump capacity max. [l/h]	Pressure [bar]	Rollers/Shoes	Rotor bearing
DFaA	Laboratory	105	2	Rollers	Drive
DFBa	Industry	430	8	Rollers	Drive
DFCa	Industry	10,100	8	Rollers	Ball bearings
DFDa	Industry	15,000	15	Shoes	Ball bearings

# For abrasive, viscous and sensitive media



## Hose pumps of the DULCO® flex product range

The feed chemical is transported by the rotor squeezing the hose in the direction of flow. No valves are needed. Therefore abrasive, viscous and sensitive media can be gently transported.

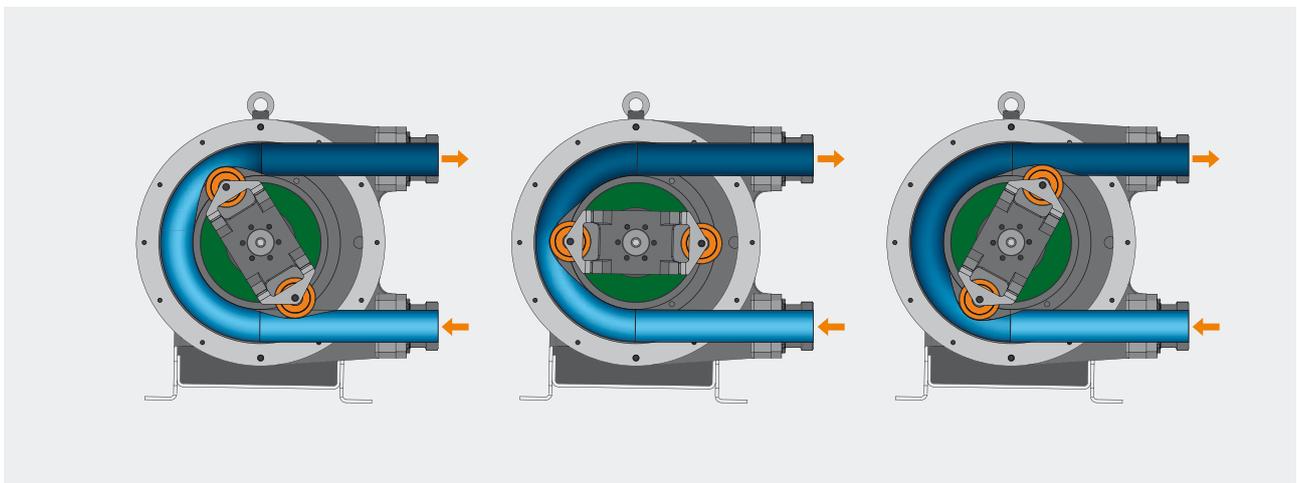
The pumping process is implemented by an elastomer hose, pressed by two rotating rollers or shoes against the pump housing. Once the rollers or shoes have passed by, the reinforced hose immediately returns to its original

shape and creates a vacuum at the pump inlet. Atmospheric pressure causes the medium to flow in. The feed rate is proportional to the pump speed.

A vacuum unit can optionally be used to help the hose to return to its original shape with pumps of the DFCa and DFDa product ranges. This improves the suction behaviour and ensures the uniform transport of viscous media.

### Transport of media with the following properties

- pasty and solid-containing
- viscous
- abrasive
- sensitive to shear
- outgassing
- corrosive



# DULCO®flex DFAa

## Precise metering of minute quantities

The hose pump DULCO®flex DFAa is designed as a low pressure pump suitable for lab use. It can be used for precise metering of low feed rates of up to 105 l/h at 2 bar. To reduce pulsation, the rotor is equipped with 3 rollers. A quick-release connector contributes to speedy replacement of the hose.

### Options

- Stainless steel base plate
- Single phase motor
- Two pump heads



Technical data	
Hose diameter	3.2 to 8 mm
Feed rates	1.6 to 10 ml/rev
Hose materials	SOLVA, silicone, Norprene A60G, Norprene A60F (food-industry approved)
Self-priming	up to 8 m
Back pressure	up to 2.0 bar

Pumps Type	Feed rate/revolution [ml/rev]	Max. pressure [bar]	Pump capacity at max. pressure [l/h]	Rollers/Shoes	Ø hose (inside) [mm]
DFAa 003	1.6	2	17	Rollers	3.2
DFAa 008	10	2	105	Rollers	8.0

# DULCO®flex DFBa

## Low and medium pump capacities

The hose pump DULCO®flex DFBa is designed for small and medium feed rates of up to 431 l/h at 8 bar. With rollers and fabric-reinforced hoses, it is ideal for heavy-duty industrial use.

If required by the customer pumps belonging to the DFBa product range can be equipped with a controller for precise batch metering. For use in the chemical industry, pumps can be manufactured with a Halar coated pump housing.

### Options

- Stainless steel base plate
- Mobile unit
- Various connectors such as BSP, NPT, Tri-Clamp and DIN 11851
- Pulsation damper
- Leakage sensor (optical)
- Housing with Halar coating



Technical data	
Connector sizes	3/8 - 1"
Feed rates	0.024 - 0.24 l/rev
Hose materials	NR, NBR, EPDM, NR-A, Norprene, NBR-A, Hypalon, Tygon
Self-priming	up to 8 m
Back pressure	up to 8 bar

Pumps Type	Feed rate/revolution [l/rev]	Pressure max. [bar]	Pump capacity at max. pressure [l/h]	Rollers/Shoes	Ø hose (inside) [mm]	Solids max. [mm]	Weight without drive [kg]	Connector DN
DFBa 010	0.024	8	54	Rollers	10	2.5	6	3/8"
DFBa 013	0.039	8	88	Rollers	13	3.3	6	3/8"
DFBa 016	0.092	8	187	Rollers	16	4.0	13	3/4"
DFBa 019	0.12	2	666	Rollers	19	4.8	13	1"
DFBa 022	0.24	8	431	Rollers	22	5.5	22	1"

# DULCO<sup>®</sup>flex DFCa

## High pump capacities and long service life

The hose pump DULCO<sup>®</sup>flex DFCa is equipped with rollers and fabric-reinforced hoses. It is ideal for heavy-duty industrial applications and feed rates of up to 10,100 l/h at 8 bar back pressure.

A ball-bearing mounted rotor ensures extremely smooth running and a long service life. With DFCa product range pumps a vacuum unit can optionally be used to help the hose to return to its original shape. This improves the suction behaviour and ensures the uniform transport of viscous media.

### Options

- Stainless steel base plate
- Available as mobile unit
- Various connectors such as BSP, NPT, Tri-Clamp, DIN11851 and flange
- Pulsation damper
- Leakage sensor (optical)
- Vacuum system



Technical data	
Connector sizes	1 ¼" - DN 80
Feed rates	0.43 - 15.83 l/rev
Hose materials	NR, NBR, EPDM, Hypalon, Norprene
Self-priming	up to 8 m
Back pressure	up to 8 bar

Pumps Type	Feed rate/revolution [l/rev]	Pressure max. [bar]	Pump capacity at max. pressure [l/h]	Rollers/Shoes	Ø hose (inside) [mm]	Solids max. [mm]	Weight without drive [kg]	Connector DN
DFCa 030	0.43	8	727	Rollers	28	7.0	62	1 ¼"
DFCa 040	0.91	8	1,583	Rollers	35	8.8	89	1 ½"
DFCa 050	1.46	8	1,839	Rollers	40	10.0	140	DN40
DFCa 060	3.12	8	5,000	Rollers	55	13.8	235	DN50
DFCa 070	8.05	8	10,100	Rollers	65	16.3	440	DN65
DFCa 70D	15.83	4	14,200	Rollers	2 x 65	16.3	850	DN80

# DULCO®flex DFDa

## High feed rates and pressures

The hose pump DULCO®flex DFDa is designed for maximum feed rates and high pressures. It is fitted with shoes and fabric-reinforced hoses. To reduce friction, the pump housing is filled with glycerine. A ball-bearing mounted rotor ensures extremely smooth running and a long service life. In harsh industrial use, the DFDa transports achieves feed rates of up to 15,000 l/h with back pressures of up to 15 bar.

With DFDa product range pumps a vacuum unit can optionally be used to help the hose to return to its original shape. This improves the suction behaviour and ensures the uniform transport of viscous media.

### Options

- Stainless steel base plate
- Available as mobile unit
- Various connectors such as Tri-Clamp, DIN 11851 and flange
- Pulsation damper
- Leakage sensor (optical)
- Vacuum system



Technical data	
Connector sizes	DN25 - DN100
Feed rates	0,3 - 20.0 l/rev
Hose materials	NR, NBR, EPDM, Hypalon, Norprene
Self-priming	up to 8 m
Back pressure	up to 15 bar

Pumps Type	Feed rate/ revolution [l/rev]	Pressure max. [bar]	Pump capacity at max. pressure [l/h]	Rollers/ Shoes	Ø hose (inside) [mm]	Solids max. [mm]	Weight without drive [kg]	Connector DN
DFDa 025	0.3	15	504	Shoes	25	6.3	57	DN25
DFDa 032	0.62	15	1,153	Shoes	32	8.0	89	DN32
DFDa 040	1.40	15	2,184	Shoes	40	10.0	150	DN40
DFDa 060	3.21	15	4,000	Shoes	57	14.3	252	DN65
DFDa 070	6.66	15	7,100	Shoes	65	16.3	530	DN65
DFDe 080	11.70	15	8,700	Shoes	80	20.0	720	DN80
DFDa 100	20.00	15	15,000	Shoes	100	25.0	1,100	DN100

## Contact worldwide

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standard in products and services worldwide. For you at your location: experience and knowhow in water treatment and chemical fluid handling are available worldwide.

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